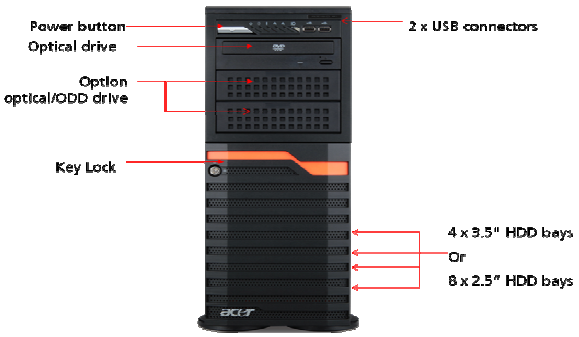
Acer AT150 F1 Specifications

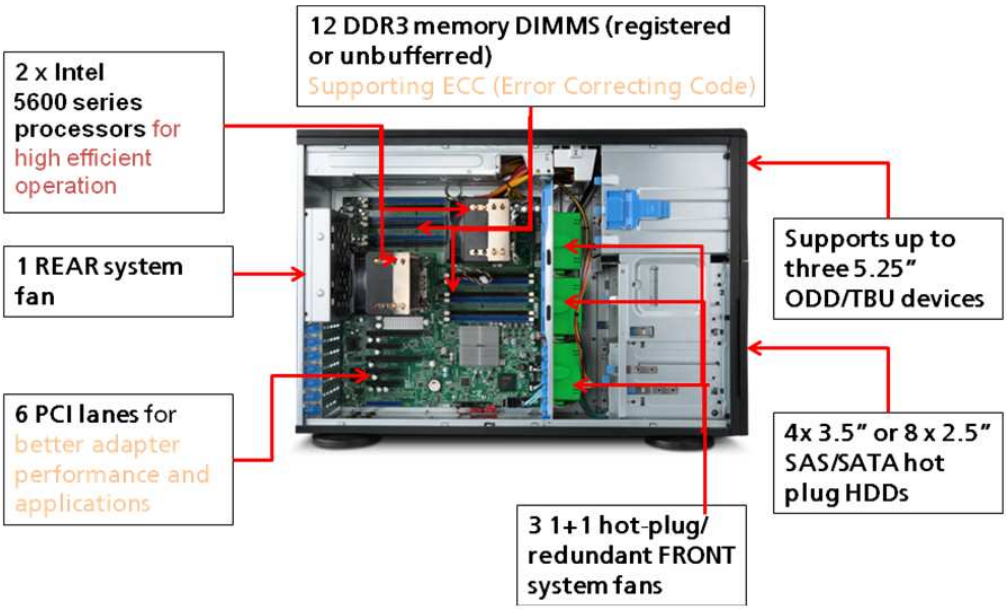
Product Overview

The Acer AT150 F1 is a dual socket Tower server with the flexibility to conversion for rack mount use. Delivering blazing performance and flexible expansion capability this server offers high reliability with a comprehensive list of management features and energy efficient operation for demanding SMB deployments.

Product Front View

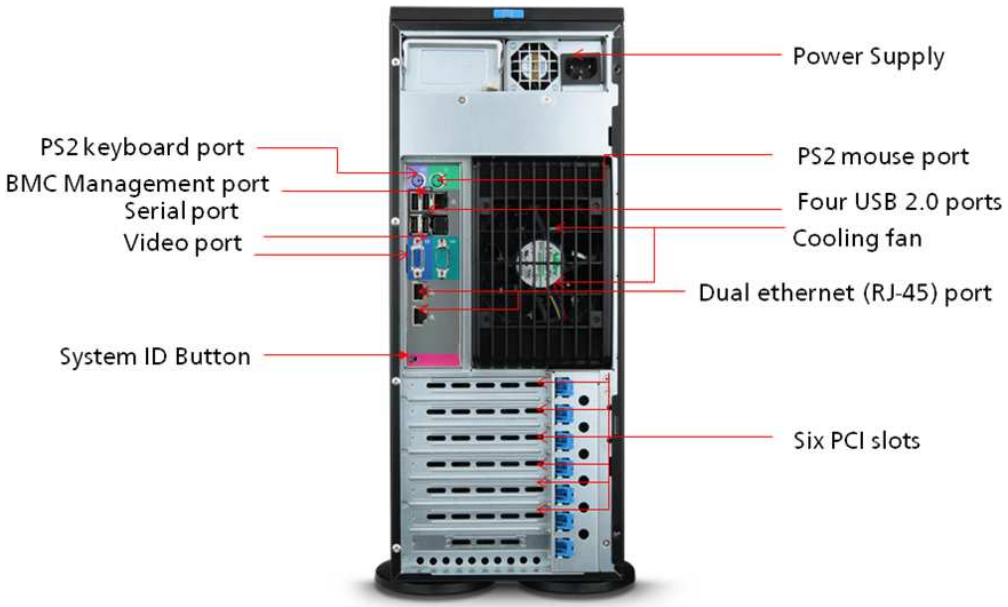


Product Inside View


12 DDR3 memory DIMMS (registered or unbufferred)
Supporting ECC (Error Correcting Code)
2 x Intel 5600 series processors for high efficient operation
1 REAR system fan
6 PCI lanes for better adapter performance and applications
Supports up to three 5.25" ODD/TBU devices
4x 3.5" or 8 x 2.5" SAS/SATA hot plug HDDs
3 1+1 hot-plug/ redundant FRONT system fans

1. 12 x ECC DDR3 1066/1333 MHz registered or unbuffered memory slots
2. 2 x Intel® Xeon® 5600 series processors supporting up to 6-cores per processor
3. Hot-plug redundant system cooling fans
4. 2 x USB 2.0 Front-mounted connectors
5. Power button, System ID button, LED indicators (Power, HDD activity, LAN 1-2 status, system ID/status/fault)
6. Support for up to eight 2.5" or four 3.5" hot-plug SATA or SAS hard disk drives
7. 3 x Optical drive bays
8. 6 x PCI Express® slots with risers

Product Rear View



1. PS2 keyboard connector
2. PS2 mouse connector
3. 4 x USB 2.0 connectors
4. Management IPMI LAN connector
5. COM (Serial) connector
6. Video connector
7. 2 x Gigabit LAN connectors
8. ID LED

What's New

- New Intel® Xeon® 5600 Series processors
- High-efficiency fixed power supply with 80 PLUS® gold-level efficiency
- DDR3 memory

Product Specifications

Processors and Chipset

- Up to two Intel® Xeon® 5600 series processors
- Chipset: Intel® 5520

Memory[1]

- Memory capacity:
  - Registered DIMM: 2, 4, 8, 16 GB[2]
  - Unbuffered DIMM: 2, 4 GB
- Up to 192 GB registered DIMMs when fully populated with 2 DIMMs per channel in 12 slots
- Up to 48 GB unbuffered DIMMs when fully populated with 2 DIMMs per channel in 12 slots

[1] Mixed use of registered memory and unbuffered ECC memory not supported
[2] 16 GB memory modules available by special request only.

Network Controllers
- Dual port Intel® 82576EB Gigabit Ethernet Controller (2 ports total)

Storage
- Hard disk form factor: 2.5” or 3.5”
- Type: SAS/ SATA with hot plug capability
- HDD Capacity (enterprise level):
  - 3.5” SAS HDD capacity: 300 GB, 450 GB, 600 GB
  - 3.5” SATA HDD capacity: 250 GB, 500 GB, 1TB, 2TB
  - 2.5” SAS HDD capacity: 73 GB, 146 GB, 300 GB, 450 GB, 600 GB
  - 2.5” SATA HDD capacity: 150 GB, 300 GB, 500 GB
- 3.5” Maximum capacity:
  - Up to 8 TB SATA HDD (2 TB 3.5" x 4 HDDs)
  - Up to 2.4 TB SAS (600 GB 3.5” x 4 HDDs)
- 2.5” Maximum capacity:
  - Up to 4 TB SATA HDD (500 GB 2.5" x 8 HDDs)
  - Up to 4.8 TB SAS (600 GB 2.5” x 8 HDDs)

Storage Controllers
- Integrated Intel® ICH10R Serial ATA host controller (six 3 Gb/s SATA ports) with RAID 0, 1, 5, 10 support
- Optional PCIe 4-port and 8-port SAS RAID card (standard on some models)

Expansion slots
- Two full height PCI-E 2.0 x16 slot (with x8 link)
- Two full height PCI-E 2.0 x8 slots (with x4 link)
- One full height PCI-E 1.0 x8 slot (with x4 link)
- One Acer Flex I/O (PCI-E 2.0 x8) slot

Management
- Acer Smart Server Manager
- System ID LED buttons, System Health LED
- Acer Smart Console for server management and KVM over IP remote management

Deployment/Serviceability
- Acer Smart Setup
- BIOS Update Tool
- IPMI Firmware Update Tool

Operating Systems
- Windows Server® 2008
- Windows Server® 2008 R2
- Windows Server® 2003
- Red Hat® Enterprise Linux v5.4
- SUSE® Linux Enterprise Server v11
- VMware ESXi™ v4
- VMware ESX™ v4

Input/output interface

Front

- One Power/off button
- LED indicators: power, HDD activity, LAN port 1 through 2, and ID
- Two USB ports
- One system intrusion switch

Rear

- PS2 keyboard port
- PS2 mouse port
- Four USB 2.0 ports
- Two RJ-45 ports (dual Gigabit NIC) with activity and link indicators
- RJ-45 port (dedicated for management NIC) with activity and link indicators
- Serial (DB-9) port
- SVGA (DB-15) port
- ID LED

Optical drive

- 5.25" half height SATA DVD/RW

Chassis/Form Factor

- Tower/ 4U (convertible for rack mounting)

Power Supply

- 560W 80 PLUS® Gold-level efficient fixed power supply

Regulatory Compliant Standards

EMC

- FCC (Class A)
- CE (Class A)
- BSMI (Class A)

Safety

- UL/cUL
- CB

Technical Specifications

Dimensions (with bezel)	434 (W) x 648 (D) x 178 (H) mm (17.2 x 25.5 x 7 inches)	
Form factor	4U tower, rack mountable	
System inlet temperature	Operating	10°- 35°C (50°- 95°F) at sea level wi th an altitude derating of 1°C per 305 m (1.8°F per 1000 ft.) above sea level to a maximum of 3050 m (10,000 ft.) no direct sustained sunlight. Maximum rate of change is 10℃/hr. (18℉/hr.). The upper limit depends on the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30℃ (86℉).
	Non-operating	-40°- 70°C (-40°- 158°F) Maximum rate of change is 20℃/hr. (36℉/hr.).
Relative humidity (non-condensing)	Operating	8 - 90 % relative humidity (Rh), 28°C (8 2.4°F) maximum wet bulb temperature, non-condensing
	Non-operating	5 - 95 % relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing

Standard Features

Processors

Intel® Xeon® Quad-Core processor

E5620 (12 MB L3 cache, 2.40 GHz, 5.86 GT/s, DDR3-1066 MHz, 80 W)

E5606 (8 MB L3 cache, 2.13 GHz, 4.8 GT/s, DDR3-1066 MHz, 80 W)

Chipset

Intel® 5520 chipset

Memory[3]	**Type**	DDR3 1066/1333 MHz Registered memory DDR3 1066/1333 MHz Unbuffered ECC memory
	DIMM sockets	12
	Capacity	Registered DIMM: 2 / 4 / 8 / 16 GB[4] Unbuffered ECC DIMM: 2 / 4 GB
	Maximum capacity	Registered DIMM: 192 GB Unbuffered DIMM: 48 GB
Memory protection	ECC, Mirroring, Sparing, Lockstep Mode, x4/x8 SDDC	
Network controller	Integrated dual Intel® 82576EB Gigabit Ethernet Controller (two ports)	

[3] Mixed use of registered memory and unbuffered ECC memory not supported.
[4] 16 GB memory modules available by special request only.

Expansion slots

The primary I/O bus for the main board is PCIe® Gen2. The following table lists the characteristics of the PCI-E bus segments.

PCI express Bus Segment Characteristics of PCI Express Topology

Expansion Slot #	# of slots	Type	Bus Width[1]	Vol.	Con. Width	Length
PCIe®	2	PCIe® Gen 2	x8	3.3V	x16	Full height
PCIe®	2	PCIe® Gen 2	x4	3.3V	x8	Full height
PCIe®	1	PCIe® Gen 1	x4	3.3V	x8	Full height
Acer Flex I/O	1	PCIe® Gen 2	x8	3.3V	x8	

NOTE:

1. Indicates the number of physical electrical lanes running to a PCIe® connector.

2. Inserting cards with PCI™ bridges may alter the actual bus assignment number.

3. Slots are enumerated differently based on the operating system. Microsoft® operating systems enumerate Device ID by bus starting from the lowest bus to the highest.

Storage controllers

Intel 82801JR (ICH10R) I/O Controller Hub

Note: Onboard SATA software RAID cannot be enabled when add-on SAS RAID is enabled.

Integrated Serial ATA controller

Simultaneous drive transfer channels	6 channels
Transfer rate synchronous (maximum theoretical)	3 GB/s per channel
Data transfer method	non-RAID mode RAID mode
Drive support	Serial ATA
Data transfer modes	Legacy mode Combined mode
Protocol	Serial ATA
Feature	NCQ (Native Command Queuing) AHCI (Advanced Host Controller Interface)
RAID levels supported	(Windows®) 0, 1,5, 10 (LINUX) 0,1,10
RAID features	• Supports multiple logical volumes • Supports setup through ROM based array configuration utility installation scripting **NOTE**: This controller requires the software RAID driver to support hot-plug functions.
RAID OS support	Windows Server® 2008 Windows Server® 2008 R2

		Red Hat® Enterprise Linux 5.4 SUSE® Linux Enterprise Server 11
Embedded dual-port Gigabit server adapter (Intel 82576EB)	**Network interface**	10Base-T 100Base-TX 1000Base-TX
	Compatibility	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX
	Virtualization acceleration	Intel I/O Acceleration Technology Virtual Machine Device Queues (VMDq) PCI-SIG SR-IOV implementation
	Connector	RJ-45
	Cable support	CAT 5e wire
	Manageability	NC-SI SMBus, PXE, iSCSI boot

Storage

Maximum internal storage		• Up to 4 hot-pluggable 3.5" SATA/SAS HDD • Up to 8 hot-pluggable 2.5” SATA/SAS/SSD HDD
	3.5” Maximum capacity	• Up to 8 TB SATA • Up to 2.4 TB SAS
	2.5” Maximum capacity	• Up to 4 TB SATA • Up to 4.8 TB SAS • Up to 512 GB SSD

Drive Support – Optical and Hard Disk Drive

Optical drive support

Drive	Quantity Supported	Bay Supported	Required Controller
Half height SATA DVD Optical Drive	Up to 3	A, B, C	Integrated SATA controller

Hard drive support

Drive	Quantity Supported	Bay Supported	Required Controller
2.5” SATA/SAS/SAS hard drive	Up to 8	0 - 7	Integrated SATA controller for up to 4 SATA HDD’s 4-port SAS RAID card for up to 4 SAS/SATA HDD’s* 8-port SAS RAID card for up to 8 SAS/SATA HDD’s

3.5” SATA/SAS hard drive	Up to 4	0 - 3	Integrated SATA controller for up to 4 SATA HDD’s 4-port SAS RAID card for up to 4 SAS/SATA HDD’s* 8-port SAS RAID card for up to 8 SAS/SATA HDD’s
*standard on some models. **NOTE:** Transfer rates of drives are dependent on the maximum transfer rate supported by the host bus adapter (HBA) or controller.			

Tape Backup Drive support

Drive	Bay Supported	Required Controller
LTO-3 1U SAS Rackmount (external) Tape Drive kit	External	SAS card
LTO-4 1U SAS Rackmount (external) Tape Drive kit	External	SAS card
160/320 GB, DAT320, 5.25”, internal half height, USB interface	B and C	Internal USB 2.0 ports
80/160 GB, DAT160, 5.25”, internal half height, USB interface	B and C	Internal USB 2.0 ports
36/72 GB, DAT72 (DDS Gen-5), 5.25”, internal half height, USB interface	B and C	Internal USB 2.0 ports

Graphics	BMC embedded • 1280 x 1024 resolution • 16 million colors • 16 MB video memory
Industry standard compliance	IPMI 2.0 Compliant (iBMC) APM 1.2 compliant SMBUS 2.0 SMBIOS 2.61 compliant ACPI v3.0b Compliant PCI-E 1.1 for Gen 1 and PCI-E 2.0 for Gen 2 PXE 2.1 support TPM cer1.2 compliance (through optional module) WOL support Microsoft Windows® Hardware Logo Program Requirements Energy Star® 1.0 Compliant
System cooling	• 2 x CPU heat sinks supporting Intel® Xeon® processors with up to TDP 95 W • One fixed system rear fan with PWM control • Three 1+1 hot-plug/redundant system front fans with PWM control on fan wall
Operating systems and virtualization software support	Windows Server® 2008 Windows Server® 2008 R2 Windows Server® 2003 R2 Red Hat® Enterprise Linux 5.4 SUSE® Linux Enterprise Server 11 VMware ESX™ 4

Server Management Utilities and Applications

Comprehensive management solutions deliver powerful and intuitive management features to simplify server set ups, configuration, management, monitoring, and reporting for the entire lifecycle of servers. Centralized administration and automatic management with remote access control free the IT resources and meet the complex business environment. Proactive monitoring and notification lead higher customers' satisfaction and higher levels of operational efficiency.

Smart Setup 2.0	Easy deployment via the latest version of Acer's Smart Setup. Smart Setup is available both in box as a driver packed installation DVD or a downloadable file to be put into a USB 2.0 device, and eases the deployment of Acer servers for any certified OS. Through its unique interface, users may select to have all the correct drivers be pre-deployed for the OS of their choosing, as well as setup hardware RAID devices, BMC settings (where available), and even clone the pre-settings to a bootable USB device to ease mass server deployments.
Smart Console	Web-based management utility to simplify system management with embedded iBMC, system monitoring and alerting, event handling, remote power control and KVM-over-IP. Smart Console is OS independent and offers virtual media through floppy, ODD, and removable disk.
Smart Server Manager v1.1	Offering 24-7 monitoring for system health and performance. Delivers proactive event management features including system event logging, event handling from e-mail and SNMP Trap (PET) alerting. Monitors onboard hardware, operating systems and virtual machines Allows remote control from KVM and Power control Satisfies management in web-based UI, role-based administration, and automated management scripts.
Intelligent manageability	• Automatic Server Recovery (ASR) • Integrated Management Log • Front and Rear Unit ID (UID) button/LED • BIOS Update tool for DOS supporting DOS and Windows OS • IPMI Firmware Update tool supporting DOS and Windows OS • Backplane firmware update tool, supporting DOS and Windows OS
Environment-friendly products and approach	Acer offers end-of-life product return, trade-in, and recycling programs in many geographic areas. Products returned to will be recycled, recovered or disposed of in a responsible manner.

Memory Support Specification

Registered Type	DDR3 1066/ 1333 MHz Capacity: 2, 4, 8, 16 GB Voltage: 1.5 V Maximum: 192 GB (16 GBx12 DIMMs)
Unbuffered Type	DDR3 1066/ 1333 MHz Capacity: 2, 4 GB Voltage: 1.5 V Maximum: 48 GB (4 GB x 12 DIMMs)
Memory protection	ECC, Mirroring, Sparing, Lockstep Mode, x4/x8 SDDC

Note: Mixing of registered memory and unbuffered ECC memory is not supported.
16 GB memory modules available by special request only.

Memory Population

The systems have twelve DIMM slots. Each CPU controls six slots. The DIMM slots support DDR3-1333 registered/unbuffered ECC memory modules.

- Each CPU has three memory channels (channel 1, 2 and 3)
- Each channel has 2 slots

The socket furthest from the CPU is socket A **(P1DIMM1A, P1DIMM2A, P1DIMM3A in blue color)**, while the nearest is socket B **(P1DIMM1B, P1DIMM2B, P1DIMM3B in black)**. For all memory modes, socket A in each channel needs to be populated first. If socket A is empty, socket B cannot be used. It is recommended that the higher rank and largest capacity DIMM be installed in slot A.

NOTE:

- In a single-processor server, memory modules are installed into the P1DIMMxx slots.
- The P2DIMMxx slots are enabled when a second CPU is installed on the main board.

For the system to function properly, DIMM modules must be installed following the slot sequence listed below. DIMM modules of the same type, size and manufacturer must be installed in the same DIMM colored slots.

- CPU 1 – populate DIMM slot P1DIMM1A first, followed by slots P1DIMM2A, P1DIMM3A, P1DIMM1B, P1DIMM2B, P1DIMM3B.
- CPU 2 – populate DIMM slot P2DIMM1A first, followed by slots P2DIMM2A, P2DIMM3A, P2DIMM1B, P2DIMM2B, P2DIMM3B.

DIMM slot notation illustrated in table below:

CPU1 (Rear CPU)	P1DIMM1B	P1DIMM1A	P1DIMM2B	P1DIMM2A	P1DIMM3B	P1DIMM3A
	Black	**Blue**	**Black**	**Blue**	**Black**	**Blue**

CPU2 (Front CPU)	P2DIMM1B	P2DIMM1A	P2DIMM2B	P2DIMM2A	P2DIMM3B	P2DIMM3A
	Black	**Blue**	**Black**	**Blue**	**Black**	**Blue**

Independent mode (please refer to the User Guide for more information)

- In this mode all memory is accessible and ECC protected

Single-processor configuration

Total Memory	P1 1B	P1 1A	P1 2B	P1 2A	P1 3B	P1 3A
2GB		2GB				
4GB		2GB		2GB		
6GB		2GB		2GB		2GB
8GB	2GB	2GB	2GB	2GB		
12GB	2GB	2GB	2GB	2GB	2GB	2GB
4GB		4GB				
8GB		4GB		4GB		
12GB		4GB		4GB		4GB
16GB	4GB	4GB	4GB	4GB		
24GB	4GB	4GB	4GB	4GB	4GB	4GB
8GB		8GB				
16GB		8GB		8GB		
24GB		8GB		8GB		8GB
32GB	8GB	8GB	8GB	8GB		
48GB	8GB	8GB	8GB	8GB	8GB	8GB
16GB*		16GB				
32GB*		16GB		16GB		
48GB*		16GB		16GB		16GB
64GB*	16GB	16GB	16GB	16GB		
96GB*	16GB	16GB	16GB	16GB	16GB	16GB

** 16 GB memory modules available by special request only.*

Dual-processor configuration

	CPU1						CPU2					
Total Memory	P1 1B	P1 1A	P1 2B	P1 2A	P1 3B	P1 3A	P2 1B	P2 1A	P2 2B	P2 2A	P2 3B	P2 3A
4GB		2GB						2GB				
8GB		2GB		2GB				2GB		2GB		
12GB		2GB		2GB		2GB		2GB		2GB		2GB
16GB	2GB	2GB	2GB	2GB			2GB	2GB	2GB	2GB		
18GB	2GB	2GB	2GB	2GB	2GB	2GB		2GB		2GB		2GB
24GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB
8GB		4GB						4GB				
16GB		4GB		4GB				4GB		4GB		
24GB		4GB		4GB		4GB		4GB		4GB		4GB
32GB	4GB	4GB	4GB	4GB			4GB	4GB	4GB	4GB		
36GB	4GB	4GB	4GB	4GB	4GB	4GB		4GB		4GB		4GB
48GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB
16GB		8GB						8GB				
32GB		8GB		8GB				8GB		8GB		
48GB		8GB		8GB		8GB		8GB		8GB		8GB
72GB	8GB	8GB	8GB	8GB	8GB	8GB		8GB		8GB		8GB
96GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB
64GB*		16GB		16GB				16GB		16GB		
96GB*		16GB		16GB		16GB		16GB		16GB		16GB
128GB*	16GB	16GB	16GB	16GB			16GB	16GB	16GB	16GB		
144GB*	16GB	16GB	16GB	16GB	16GB	16GB		16GB		16GB		16GB
192GB*	16GB	16GB	16GB	16GB	16GB	16GB	16GB	16GB	16GB	16GB	16GB	16GB

** 16 GB memory modules available by special request only.*

Mirroring mode:

- In mirroring mode, the memory contains a primary image and a copy of the primary image therefore the effective size of memory is reduced by one half.
- Channel 3 has no function in these modes.
- Follow the population rules described in independent mode.
- Mirroring mode needs the channel 1 & channel 2 DIMMs to be identical. DIMM slot populations within a channel do not have to be identical but the same DIMM slot location across channel 1 and channel 2 must be the same. DIMM1A and DIMM2A should be the same type, size and manufacturer. DIMM1B and DIMM2B memory should be the same type, size and manufacturer. DIMM1C and DIMM2C memory should be the same type, size and manufacturer.
- Same rules apply to CPU2.
- Please refer to the User Guide for complete population rules for both single and dual processor configurations.

Lockstep mode:

- In Lockstep Channel Mode, each memory access is 128-bit data access that spans Channel 1 and Channel 2. This is done to support SDDC for DRAM devices with 8-bit wide data ports. The same address is used on both channels such that an address error on any channel is detectable.
- Lockstep Channel mode is the only RAS mode that supports x8 SDDC.
- Channel 3 has no function in these modes.
- Follow the population rules described in independent mode.
- Lockstep mode needs the channel 1 & channel 2 DIMMs to be identical. DIMM slot populations within a channel do not have to be identical but the same DIMM slot location across channel 1 and channel 2 must be the same. DIMM1A and DIMM2A should be the same type, size and manufacturer. DIMM1B and DIMM2B memory should be the same type, size and manufacturer. DIMM1C and DIMM2C memory should be the same type, size and manufacturer.
- Same rules apply to CPU2.
- Please refer to the User Guide for complete population rules for both single and dual processor configurations.

Sparing mode:

- In sparing mode, if the system detects degrading memory, the data in the failed channel will be copied to the spare channel. The failed channel is then isolated and the spare channel becomes active. Any uncorrectable error detected before the isolation will cause the system to stop normal operation.
- Channel 3 is the spare channel. Therefore, the effective size will be reduced by one-third.
- Follow the population rules described in independent mode.
- Sparing mode needs all three channels to utilize identical DIMMs. 1A, 2A and 3A should be the same type, size and manufacturer. 1B, 2B and 3B memory should be the same type, size and manufacturer. 1C, 2C and 3C memory should be the same type, size and manufacturer.
- Same rule is applied to CPU2.
- Please refer to the User Guide for complete population rules for both single and dual processor configurations.

Memory Identification

Generally, there is memory information printed on the label of the DIMM, but different vendors may have different formats. For example:

4GB 2Rx4 PC3-10600R xx xx xxx

1. Density

- 2GB, 4GB, 8GB, 16GB
- Intel® Xeon® 5600 series processors support DIMMs organized by 1Gb, 2Gb or 4Gb DRAM chips

2. Rank

- 1R = Single Rank
- 2R = Dual Rank
- 4R = Quad Rank

3. Bit Organization

- This platform supports x4 and x8
- Note: It is not recommended to mix DIMMs with different bit organizations in one system

4. Speed

- PC3 – 6400 => DDR3- 800
- PC3 – 8500 => DDR3- 1066
- PC3 – 10600 => DDR3- 1333

Power Supply Specification

560 W Fixed Power Supply							
Operational Input Voltage Range (Vrms)	100 to 240 VAC						
Frequency Range (Nominal) (Hz)	50 / 60						
Nominal Input Voltage (Vrms)	**100**	**120**	**208**	**200**	**220**	**230**	**240**
Max. Rated Output Wattage (Watts)	560	560	600	600	600	600	600
Nominal Input Current (A rms)	6.5	6.5	3.5	3.5	3.5	3.5	3.5
Max. Rated Input Wattage Rating (Watts)	670	650	690	690	690	680	680
Max. Rated VA (Volt-Amp)	677	657	719	719	719	709	709
Efficiency (%) at Max. Rated Output Wattage	84	87	87	87	87	89	89
Power Factor	0.99	0.99	0.96	0.96	0.96	0.96	0.96
Leakage Current (mA)	0.5	0.5	1.0	1.0	1.0	1.0	1.0
Max. Inrush Current (A peak)	Less than 30A	Less than 30A	Less than 30A	Less than 30A	Less than 30A	Less than 30A	Less than 30A
Max. Inrush Current Duration (mS)	3.5	3.5	2.5	2.5	2.5	2.5	2.5
Max. British Thermal Unit Rating (BTU/hr.)	2285	2285	2353	2353	2353	2319	2319

1 KW = 3412 BTU/hr.

Hardware Key Options

CPU	• Intel® Xeon® 5600 series
HDD	• SAS 2.5”: 73 GB, 146 GB, 300 GB, 450 GB, 600 GB • SAS 3.5”: 300 GB, 450 GB, 600 GB • SATA 2.5”: 150 GB, 300 GB, 500 GB • SATA 3.5”: 250 GB, 500 GB, 1TB, 2 TB • SATA SSD 2.5”: 32GB, 64GB
Memory	• DDR3 1333 MHz Unbuffered ECC 2/ 4 GB • DDR3 1333 MHz Registered ECC 2/ 4/ 8/ 16 GB
SAS HBA	• SAS HBA, internal 2-ports/external 2-ports, PCI-E x1 interface
SAS RAID	• MegaRAID® SAS 9240-4i, 4 internal ports, PCIe x8, supporting RAID 0/1/10/5 • MegaRAID® SAS 9260-8i, 8 internal ports, 512 MB PCIe x8, supporting RAID 0/1/10/5/50/6/60 • LSI® BBU07/ Battery Backup Unit for MegaRAID® SAS 9260-8i
Networking	• Gigabit CT Desktop Adapter, Gigabit Adapter 10/100/1000 Mbps • Gigabit ET Server Adapter, Gigabit 10/100/1000 Mbps, PCIe, dual-port • Gigabit ET2 Server Adapter, Gigabit Adapter 10/100/1000 Mbps, PCIe, quad-port • Ethernet Server Adapter X520-DA2, 10 Gb, Dual ports, direct attach • Ethernet Server Adapter X520-LR1, single port, LR • Ethernet Server Adapter X520-SR1, single port, SR • Ethernet Server Adapter X520-SR2, dual ports, SR
Fiber channel HBA	• Qlogic SANblade® QLE2460 single port fibre channel to PCI express host bus adapter, 1 ch, 8 Gb FC HBA, PCIe x8, single LC port (std & low-profile bracket) • Qlogic SANblade® QLE2462 dual ports fibre channel to PCI express host bus adapter, 2ch, 8 Gb FC HBA, PCIe x8, dual LC port (std & low-profile bracket)

Server Additional Options/Accessories

TPM	• TPM module (TPM 1.2)
Optical Drive	• Half height SATA DVD/RW
Flash memory	• USB low profile flash memory for VMware embedded
HDD cage/carrier	• 3.5” 4-HDD cage (std) • 2.5” 8-HDD cage (optional)
Tape and disk-based backup	• LTO-3 1U SAS Rackmount (external) Tape Drive kit • LTO-4 1U SAS Rackmount (external) Tape Drive kit • 36/72 GB, DAT72 (DDS Gen-5), 5.25”, internal half height, USB interface • 80/160 GB, DAT160, 5.25”, internal half height, USB interface • 160/320 GB, DAT320, 5.25”, internal half height, USB interface
Rack kit	• Sliding rails for 4U rack conversion

Service and Support

Acer Servers offer a comprehensive service suite to take care of daily IT needs. Users can select the 1-year standard warranty or choose extended warranties and services[5].

The standard warranty for the AT150 F1 includes one year Parts coverage only.

Warranty repairs may be accomplished through the use of Customer Replacement Unit (CRU) parts. CRU parts include: Hot Plug Hard Drives and Hot Plug Power Supplies. These parts are designed for easy replacement without tools. Travel and labor charges may apply if customers decline to replace a CRU part.

In a continuing effort to improve the quality of our products, information in this document is subject to change without notice. Images shown are only representations of some of the configurations available for this model. Availability may vary depending on region.

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[5] Extension warranty services may vary by country. Please contact Acer authorized resellers for more information.

Acer Standard Server Models	**Part Number**
Acer AT150 LFF Models	
Acer AT150F1 Xeon E5606, 1x2GB DDR3 Unb., 1x 250GB 7.2k SATA Enterprise HotSwap HDD, 4x3,5" HDD bay, Onboard SATA, DVD-RW, 560W 80+ Gold Fixed PSU, 2x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, US Power Cable, USB Wheel Mouse, USB Keyboard	TT.R6L00.074
Acer AT150F1 Xeon E5606, 1x2GB DDR3 Unb.,No HDD, 4x3,5" HDD bay, 4 Port 6G SAS RAID Controller, DVD-RW, 560W 80+ Gold Fixed PSU, 2x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, US Power Cable, USB Wheel Mouse, USB Keyboard	TT.R6L00.075
Acer AT150F1 Xeon E5620, 2x2GB DDR3 Unb.,No HDD, 4x3,5" HDD bay, 4 Port 6G SAS RAID Controller, DVD-RW, 560W 80+ Gold Fixed PSU, 2x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, US Power Cable, USB Wheel Mouse, USB Keyboard	TT.R6L00.073
Acer Key Options	**Part Number**
Acer CPU Heatsink	
Note: one heatsink required for each processor option kit	
Acer Intel CPU heat-sink (TDP 95W supported) for DP tower server	TC.34900.006
Acer Processor upgrade kits	
Note: one heatsink required for each processor option kit	
Note: all processors in a system must match	
Acer Intel® Xeon® processor E5606 (B-1) Kit	TC.32500.041
Acer Intel® Xeon® processor E5620 (B-1) Kit	TC.32500.024
Acer Memory	
Note: cannot mix Unbuffered memory with Registered memory	
Note: please refer to "Memory Support" Section for details on configuring memory	
Acer Unbuffered Memory	
Acer 2GB DDR3-1333 Unbuffered Memory Kit (1 pc.)	TC.33100.035
Acer 4GB DDR3-1333 Unbuffered Memory Kit (1 pc.)	TC.33100.037
Acer Registered Memory	
Acer 2GB DDR3-1333 Registered Memory Kit (1 pc.)	TC.33100.029
Acer 4GB DDR3-1333 Registered Memory Kit (1 pc.)	TC.33100.031
Acer 8GB DDR3-1333 Registered Memory Kit (1 pc.)	TC.33100.042
Acer Storage	
Acer SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
Acer 250GB 3Gb/s 7.2K 3.5-inch Enterprise SATA HDD Kit	TC.32700.068
Acer 500GB 3Gb/s 7.2K 3.5-inch Enterprise SATA HDD Kit	TC.32700.066
Acer 1TB 3Gb/s 7.2K 3.5-inch Enterprise SATA HDD Kit	TC.32700.064
Acer 2TB 3Gb/s 7.2K 3.5-inch Enterprise SATA HDD Kit	TC.32700.062
Acer SAS Hot Plug LFF (3.5-inch) Enterprise Drives	
Acer 500GB 6Gb/s 7.2K 3.5-inch Enterprise SAS HDD Kit	TC.32700.108
Acer 1TB 6Gb/s 7.2K 3.5-inch Enterprise SAS HDD Kit	TC.32700.107
Acer 2TB 6Gb/s 7.2K 3.5-inch Enterprise SAS HDD Kit	TC.32700.106
Acer 300GB 6Gb/s 15K 3.5-inch Enterprise SAS HDD Kit	TC.32700.079
Acer 450GB 6Gb/s 15K 3.5-inch Enterprise SAS HDD Kit	TC.32700.077
Acer 600GB 6Gb/s 15K 3.5-inch Enterprise SAS HDD Kit	TC.32700.075

Acer SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
Note: SFF drives are supported only on AT150 models with the optional 8x2.5" HDD Bay	
Acer 150GB 3Gb/s 10K 2.5-inch Enterprise SATA HDD Kit	TC.32700.090
Acer 300GB 3Gb/s 10K 2.5-inch Enterprise SATA HDD Kit	TC.32700.088
Acer 500GB 3Gb/s 7.2K 2.5-inch Enterprise SATA HDD Kit	TC.32700.046
Acer 1TB 6Gb/s 7.2K 2.5-inch Enterprise SATA HDD Kit	TC.32700.091
Acer SAS Hot Plug SFF (2.5-inch) 10K Enterprise Drives	
Note: SFF drives are supported only on AT150 models with the optional 8x2.5" HDD Bay	
Acer 146GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.083
Acer 300GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.081
Acer 450GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.072
Acer 600GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.070
Acer 900GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.104
Acer SAS Hot Plug SFF (2.5-inch) 15K Enterprise Drives	
Note: SFF drives are supported only on AT150 models with the optional 8x2.5" HDD Bay	
Acer 146GB 6Gb/s 15K 2.5-inch Enterprise SAS HDD Kit	TC.32700.085
Acer 300GB 6Gb/s 15K 2.5-inch Enterprise SAS HDD Kit	TC.32700.105
Acer SATA Hot Plug SFF (2.5-inch) Enterprise SSD Drives	
Note: SFF drives are supported only on AT150 models with the optional 8x2.5" HDD Bay	
Acer 32GB SLC SATA 2.5-inch Enterprise SSD Kit	TC.33900.003
Acer 64GB SLC SATA 2.5-inch Enterprise SSD Kit	TC.33900.004
Acer SAS Storage Controllers	
Acer 4-port 6Gb/s SAS RAID Adapter (w/ mSAS-mSAS cable) Kit	TC.32300.028
Acer 8-port 6Gb/s SAS RAID Adapter (w/ mSAS-mSAS cable) Kit	TC.32300.034
Acer Battery Backup Kit for Cache module in 8port/16port SAS RAID Card	TC.34800.006
Acer Fibre Channel Storage Controllers	
Acer 8Gb/s Single Port Fibre Channel HBA Kit	TC.32300.024
Acer 8Gb/s Dual Port Fibre Channel HBA Kit	TC.32300.026
Acer Tape Drives	
Acer 36/72GB, DAT72 (DDS Gen-5), 5.25", internal, half-height, default USB cable	TC.34000.026
Acer 80/160GB, DAT160, 5.25", internal, half-height, interface USB, default USB cable	TC.34000.028
Acer 160G/320G ,DAT 320, 5.25" Internal Half-Height ,Interface USB, default USB cable	TC.34000.030
Acer LTO-3/LTO-4 1U Rackmount (ext.) Chassis Kit	TC.34000.040
Acer LTO-3 HH (int.) Tape Drive Kit - Compatible with Acer Servers which support Internal LTO drives (or) 1U external Rackmount chassis kit	TC.34000.022
Acer LTO-4 HH (int.) Tape Drive Kit -Compatible with Acer Servers which support internal LTO drives (or) 1U external Rackmount chassis kit	TC.34000.024
Acer Additional Upgrades	
Acer 8-bay 2.5-inch Hot-plug HDD Cage Kit	TC.32800.006
Acer DVD-SuperMultidriveKit	TC.33500.002
Acer Sliding Rail (AT150 F1/AT350 F1) Kit (900mm or 1000mm Rack required)	TC.33700.012
Acer Gigabit Single Port LAN Adapter Kit	TC.32200.011
Acer Gigabit Dual Port Server LAN Adapter Kit	TC.32200.009
Acer Gigabit Quad Port Server LAN Adapter Kit	TC.32200.010
Acer 10 Gigabit Dual Port (DA) Server LAN Adapter Kit	TC.32200.012
Acer 10 Gigabit Single Port (SR) Server LAN Adapter Kit	TC.32200.014
Acer 10 Gigabit Single Port (LR) Server LAN Adapter Kit	TC.32200.013

Acer 10 Gigabit Dual Port (SR) Server LAN Adapter Kit	TC.32200.015
Acer Gigabit Dual Port Server LAN Adapter Kit - Intel based	TC.32200.022
Acer Gigabit Quad Port Server LAN Adapter Kit - Intel based	TC.32200.023
Acer 10 Gigabit Dual Port (DA) Server LAN Adapter Kit - Intel based	TC.32200.024

Acer Operating Systems	
Windows Server Enterprise 2008	
Acer ROK Windows SVR 2008 R2 Enterprise (64bit,25Clt,EN)	TC.34400.035
Acer ROK MICROSOFT Win SVR 2008 64bit Ent R2 10 Clt EN W/COA W/CD/DVD ACER 1-8CPU	TC.34400.034
Windows Server Standard 2008	
Acer ROK MICROSOFT Win SVR 2008 64bit Std R2 5 Clt EN W/COA W/CD/DVD ACER 1-4CPU	TC.34400.033
Microsoft Windows SBS Server Standard	
Acer ROK MICROSOFT Win SBS 2008 64bit Std w/SP2 5 Clt EN W/COA W/CD/DVD ACER 1-4CPU	TC.34400.041
Acer ROK MICROSOFT Win SBS 2008 64bit Prem w/SP2 5 Clt EN W/COA W/CD/DVD ACER 1-4CPU	TC.34400.043
Acer ROK Win SBS 2011 Standard (64bit, 5Clt, EN) Kit	TC.34400.136
Acer ROK Win SBS 2011 Premium (64bit,5Clt,EN) Kit	TC.34400.138
Microsoft CAL's	
Acer Windows Server 2008 CAL EN (5 Device)	TC.34400.061
Acer Windows Server 2008 CAL EN (5 User)	TC.34400.063
Acer Windows SBS 2011 Prem CAL EN (5 Device)	TC.34400.158
Acer Windows SBS 2011 Prem CAL EN (5 User)	TC.34400.159
Acer Windows SBS 2011 Std CAL EN (5 Device)	TC.34400.160
Acer Windows SBS 2011 Std CAL EN (5 User)	TC.34400.161
Acer Services	
Acer Upgrade from 1 year Parts only to 1 year Parts/Labor/On-site Service (AT150/AR160/AR180)	146.AD306.002
Acer Upgrade from 1 year Parts only to 3 years Parts/Labor/On-site Service (AT150/AR160/AR180)	146.AD314.007